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United States Patent Application**20040081642****Kind Code****A1****Loscalzo, Joseph ; et al.****April 29, 2004**

Methods of treating vascular diseases characterized by nitric oxide insufficiency related applications

Abstract

The present invention provides methods of treating or preventing vascular diseases caused by nitric oxide (NO) insufficiency. The methods encompass administering a composition comprising an antioxidant, a compound to treat cardiovascular diseases, a nitrosated compound, a compound that donates, transfers or relases NO, or is a NO synthase substrate, or endogenously stimulates NO synthesis, or stimulates levels of endothelium derived relaxing factor. In the composition, a hydralazine compound may be an antioxidant, isosorbide mono-or dinitrate may be the compound to donate, transfer, release, or stimulate endogenous NO synthesis. The isosorbide may also elevate endogenous levels of endothelium-derived relaxing factor, or be a NO synthase substrate and angiotensin enzyme inhibitor may be nitrosated compound. Disclosed in the invention is also a method to treat, or prevent Renaud's syndrome by administering a therapeutically effective amount of an antioxidant, a NO donor, a nitrosated compound and novel sustained-release formulations (e.g. a transdermal patch).

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Claims

Case Creation Option

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The Contents of Case "10687706US20060709"

| Qnum | Query | DB Name | Thesaurus | Operator | Plural |
|------|-------------------------------------|-------------------------------|-----------|----------|--------|
| Q1 | 6635273.PN. | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q2 | TRANSDERMAL NEAR5 paTCH | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q3 | VASCULAR DISEASE | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q4 | ANTIOXIDANT | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q5 | ISOSORBIDE DINITRATE | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q6 | ISOSORBIDE MONONITRATE | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q7 | COENZYME q | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q8 | HYDRALIZE HYDROCHLORIDE | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q9 | HYDRALAZINE HYDROCHLORIDE | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q10 | Q4 AND Q9 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q11 | Q5 AND Q10 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q12 | Q6 AND Q11 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q13 | Q7 AND Q12 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q14 | Q9 AND Q13 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q15 | Q2 AND Q14 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q16 | Q3 AND Q15 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q17 | GLUTATHIONE | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q18 | ("VITAMIN c") OR (ASCORBIC ACID) | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q19 | ("VITAMIN E") OR (TOCOPHEROL) | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q20 | CYSTEINE | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q21 | (aCETYL-CYSTEINE) | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q22 | (BETA CAROTENE) | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |

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| Q23 | (COENZYME q) | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q24 | UBIQUINONE | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q25 | Q4 SAME Q5 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q26 | Q24 SAME Q25 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q27 | Q17 SAME Q25 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q28 | Q2 SAME Q27 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q29 | Q2 AND Q27 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q30 | Q2 AND Q27 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q31 | Q25 AND Q17 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q32 | Q5 SAME Q17 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q33 | Q2 SAME Q32 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q34 | Q2 SAME Q5 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q35 | Q2 SAME Q7 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q36 | Q2 SAME Q8 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q37 | Q2 SAME Q9 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q38 | Q2 SAME Q17 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q39 | Q2 SAME Q18 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q40 | Q2 SAME Q19 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q41 | Q2 SAME Q20 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q42 | Q2 SAME Q21 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q43 | Q2 SAME Q22 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q44 | Q2 SAME Q23 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q45 | Q2 SAME Q24 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q46 | Q41 SAME Q34 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q47 | Q40 SAME Q34 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q48 | Q39 SAME Q34 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q49 | Q4 SAME Q34 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q50 | Q2 SAME Q7 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q51 | Q34 SAME Q7 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q52 | Q2 SAME Q6 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q53 | Q2 SAME Q7 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q54 | Q52 SAME Q53 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |

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| Q55 | 5627191.PN. | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q56 | Q55 SAME Q4 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q57 | Q55 SAME Q5 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q58 | Q55 AND Q5 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q59 | Q55 AND Q6 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q60 | Q55 AND Q4 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q61 | 4868179 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q62 | 4868179.PN. | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q63 | 5645839.PN. | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q64 | Q63 AND Q9 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q65 | Q62 AND Q9 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q66 | Q5 AND Q65 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q67 | Q2 AND Q65 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q68 | Q2 AND Q63 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q69 | Q68 AND Q4 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q70 | Q9 AND Q69 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q71 | Q3 AND Q69 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q72 | Q3 AND Q65 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q73 | Q5 AND Q69 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q74 | Q62 AND Q63 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q75 | Q2 AND Q4 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q76 | Q5 AND Q75 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q77 | Q76 AND Q73 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q78 | Q76 AND Q62 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q79 | Q76 AND Q55 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q80 | (SUPEROXIDE DISMUTASE) OR ("RN-9054-89-1") | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q81 | CATALASE OR ("RN-9001-05- 2") | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q82 | ("RN-013-66-5") OR (Glutathione peroxidase) | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q83 | Q4 AND Q5 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q84 | Q6 AND Q83 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
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| Q85 | Q9 AND Q84 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q86 | Q80 AND Q85 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q87 | Q5 AND Q9 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q88 | Q82 AND Q87 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q89 | Q81 AND Q87 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q90 | Q77 AND Q80 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q91 | Q77 AND Q81 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q92 | Q77 AND Q82 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q93 | Q73 AND Q82 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q94 | Q73 AND Q81 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q95 | Q73 AND Q80 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q96 | Q55 AND Q81 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
| Q97 | Q9 AND Q81 | PGPB,USPT,USOC,EPAB,JPAB,DWPI | None | ADJ | YES |
